

SEQUENCE LISTING

<110> Rothman, James
Mayhew, Mark
Hoe, Mee

<120> KDEL RECEPTOR INHIBITORS

<130> 31488

<140> US 09/124,671
<141> 1998-07-29

<160> 42

<170> FastSEQ for Windows Version 3.0

<210> 1
<211> 46
<212> PRT
<213> Ratus ratus

<400> 1
Gly Asp Leu Ala Pro Gln Met Leu Arg Glu Leu Gln Glu Thr Asn Ala
1 5 10 15
Ala Leu Gln Asp Val Arg Glu Leu Leu Arg Gln Gln Val Lys Glu Ile
20 25 30
Thr Phe Leu Lys Asn Thr Val Met Glu Cys Asp Ala Cys Gly
35 40 45

<210> 2
<211> 46
<212> PRT
<213> Homo sapiens

<400> 2
Ser Asp Leu Gly Pro Gln Met Leu Arg Glu Leu Gln Glu Thr Asn Ala
1 5 10 15
Ala Leu Gln Asp Val Arg Asp Trp Leu Arg Gln Gln Val Arg Glu Ile
20 25 30
Thr Phe Leu Lys Asn Thr Val Met Glu Cys Asp Ala Cys Gly
35 40 45

<210> 3
<211> 46
<212> PRT
<213> Mus musculus

<400> 3
Gly Glu Gln Thr Lys Ala Leu Val Thr Gln Leu Thr Leu Phe Asn Gln
1 5 10 15

Ile Leu Val Glu Leu Arg Asp Asp Ile Arg Asp Gln Val Lys Glu Met
20 25 30
Ser Leu Ile Arg Asn Thr Ile Met Glu Cys Gln Val Cys Gly
35 40 45

<210> 4
<211> 46
<212> PRT
<213> Homo sapiens

<400> 4
Gly Glu Gln Thr Lys Ala Leu Val Thr Gln Leu Thr Leu Phe Asn Gln
1 5 10 15
Ile Leu Val Glu Leu Arg Asp Asp Ile Arg Asp Gln Val Lys Glu Met
20 25 30
Ser Leu Ile Arg Asn Thr Ile Met Glu Cys Gln Val Cys Gly
35 40 45

<210> 5
<211> 46
<212> PRT
<213> Homo sapiens

<400> 5
Gly Asp Phe Asn Arg Gln Phe Leu Gly Gln Met Thr Gln Leu Asn Gln
1 5 10 15
Leu Leu Gly Glu Val Lys Asp Leu Leu Arg Gln Gln Val Lys Glu Thr
20 25 30
Ser Phe Leu Arg Asn Thr Ile Ala Glu Cys Gln Ala Cys Gly
35 40 45

<210> 6
<211> 46
<212> PRT
<213> Xenopus laevis

<400> 6
Gly Asp Val Ser Arg Gln Leu Ile Gly Gln Ile Thr Gln Met Asn Gln
1 5 10 15
Met Leu Gly Glu Leu Arg Asp Val Met Arg Gln Gln Val Lys Glu Thr
20 25 30
Met Phe Leu Arg Asn Thr Ile Ala Glu Cys Gln Ala Cys Gly
35 40 45

<210> 7
<211> 27
<212> PRT
<213> Homo sapiens

<400> 7
Gln Lys Leu Gln Asn Leu Phe Ile Asn Phe Cys Leu Ile Leu Ile Cys
1 5 10 15
Leu Leu Leu Ile Cys Ile Ile Val Met Leu Leu

<210> 8
<211> 9
<212> PRT
<213> papillomavirus

<400> 8
Leu Leu Leu Gly Thr Leu Asn Ile Val
1 5

<210> 9
<211> 9
<212> PRT
<213> papillomavirus

<400> 9
Leu Leu Met Gly Thr Leu Gly Ile Val
1 5

<210> 10
<211> 9
<212> PRT
<213> papillomavirus

<400> 10
Thr Leu Gln Asp Ile Val Leu His Leu
1 5

<210> 11
<211> 9
<212> PRT
<213> papillomavirus

<400> 11
Gly Leu His Cys Tyr Glu Gln Leu Val
1 5

<210> 12
<211> 9
<212> PRT
<213> papillomavirus

<400> 12
Pro Leu Lys Gln His Phe Gln Ile Val
1 5

<210> 13
<211> 115
<212> PRT
<213> Artificial Sequence

<220>

<223> chimeric rat comp

<400> 13
Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
1 5 10 15
Val Arg Ala Glu Gly Ser Ser Leu Gly Gly Asp Leu Ala Pro Gln Met
20 25 30
Leu Arg Glu Leu Gln Glu Thr Asn Ala Ala Leu Gln Asp Val Arg Glu
35 40 45
Leu Leu Arg Gln Gln Val Lys Glu Ile Thr Phe Leu Lys Asn Thr Val
50 55 60
Met Glu Cys Asp Ala Cys Gly Met Gln Pro Ala Arg Thr Pro Gly Thr
65 70 75 80
Ser Pro Gln Pro Gln Pro Lys Pro Gln Pro Gln Pro Gln Pro Gln Pro
85 90 95
Lys Pro Gln Pro Lys Pro Glu Pro Glu Gly Thr Gly Ser Ser Glu Lys
100 105 110
Asp Glu Leu
115

<210> 14

<211> 387

<212> DNA

<213> Artificial Sequence

<220>

<223> chimeric rat COMP-KDEL

<400> 14

aagcttacca tggaaaagtt cactgtggtg gcggcgccgt tgctgctgct gggcgccgtg 60
cgggcccagg gatccagcct gggtgagac ctagccccac agatgcttcg agaactccag 120
gagactaatg cggcgctgca agacgtgaga gagctttgc gacagcaggt caaggagatc 180
accttcctga agaatacggt gatggaatgt gacgcttgcg gaatgcagcc cgcacgcacc 240
cccggtacta gtccgcagcc gcagccaaa ccgcagccgc agccgcagcc gcagccaaa 300
ccgcagccga aaccggaacc ggaaggtacc ggatcatcag aaaaagatga gttgtaggcg 360
gccgcagaat tccatatgca tctcgag 387

<210> 15

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> chimeric rat COMP-KDEL

<400> 15

Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
1 5 10 15
Val Arg Ala Glu Gly Ser Ser Leu Gly Gly Asp Cys Cys Pro Gln Met
20 25 30
Leu Arg Glu Leu Gln Glu Thr Asn Ala Ala Leu Gln Asp Val Arg Glu
35 40 45
Leu Leu Arg Gln Gln Val Lys Glu Ile Thr Phe Leu Lys Asn Thr Val

50 55 60
Met Glu Cys Asp Ala Cys Gly Met Gln Pro Ala Arg Thr Pro Gly Thr
65 70 75 80
Ser Pro Gln Pro Gln Pro Lys Pro Gln Pro Gln Pro Gln Pro Gln Pro
85 90 95
Lys Pro Gln Pro Lys Pro Glu Pro Gly Thr Gly Ser Ser Glu Lys
100 105 110
Asp Glu Leu
115

<210> 16
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
<223> chimeric rat COMP-KDEL

<400> 16

aagcttacca tggaaaagtt cactgtggtg gcggcgccgt tgctgctgct gggcgccgtg 60
cgggcccagg gatccaggcct ggggtggagac tgggttccac agatgcttcg agaactccag 120
gagactaatg cggcgctgca agacgtgaga gagctttgc gacagcaggt caaggagatc 180
actttcctga agaatacggt gatggaatgt gacgcttgcg gaatgcagcc cgacacgcacc 240
cccggtacta gtccgcagcc gcagccgaaa ccgcagccgc agccgcagcc gcagccgaaa 300
ccgcagccga aaccggaacc ggaaggtacc ggatcatcag aaaaagatga gttgtaggcg 360
gccgcagaat tccatatgca tctcgag 387

<210> 17
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> chimeric mouse TSP3-KDEL

<400> 17

Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
1 5 10 15
Val Arg Ala Glu Gly Ser Ser Leu Gly Gly Asp Cys Cys Lys Ala Leu
20 25 30
Val Thr Gln Leu Thr Leu Phe Asn Gln Ile Leu Val Glu Leu Arg Asp
35 40 45
Asp Ile Arg Asp Gln Val Lys Glu Met Ser Leu Ile Arg Asn Thr Ile
50 55 60
Met Glu Cys Gln Val Cys Gly Pro Gln Pro Gln Pro Lys Pro Gln Pro
65 70 75 80
Gln Pro Gln Pro Gln Pro Lys Pro Gln Pro Lys Pro Glu Pro Glu Gly
85 90 95
Thr Gly Ser Ser Glu Lys Asp Glu Leu
100 105

<210> 18
<211> 357

<212> DNA
<213> Artificial Sequence

<220>
<223> chimeric mouse TSP3-KDEL

<400> 18

aagcttacca	tggaaaagtt	cactgtggtg	gcggcgccgt	tgctgctgct	gggcgcggtg	60
cgggcccagg	gatccagcct	gggtggagac	tgttgtgggg	cattggtcac	ccagctcacc	120
ctcttcaacc	agatcctagt	ggagcttcgg	gacgacatcc	gagaccaggt	gaaggaaatg	180
tcactcatcc	ggaacaccat	catggagtgt	caggtgtcg	gtccgcagcc	gcagccgaaa	240
ccgcagccgc	agccgcagcc	gcagccgaaa	ccgcagccga	aaccggaaacc	ggaaggtacc	300
ggatcatcat	aaaaagatga	gttgttagg	ccgcagaat	tccatatgca	tctcgag	357

<210> 19

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> chimeric mouse TSP3-KDEL

<400> 19

Met	Gly	Lys	Phe	Thr	Val	Val	Ala	Ala	Ala	Leu	Leu	Leu	Leu	Gly	Ala
1					5				10				15		
Val	Arg	Ala	Glu	Gly	Ser	Ser	Leu	Gly	Gly	Asp	Cys	Cys	Gly	Glu	Gln
							20		25				30		
Thr	Lys	Ala	Leu	Val	Thr	Gln	Leu	Thr	Leu	Phe	Asn	Gln	Ile	Leu	Val
								35		40			45		
Glu	Leu	Arg	Asp	Asp	Ile	Arg	Asp	Gln	Val	Lys	Glu	Met	Ser	Leu	Ile
								50		55			60		
Arg	Asn	Thr	Ile	Met	Glu	Cys	Gln	Val	Cys	Gly	Pro	Gln	Pro	Gln	Pro
								65		70			75		80
Lys	Pro	Gln	Pro	Gln	Pro	Gln	Pro	Gln	Pro	Lys	Pro	Gln	Pro	Lys	Pro
								85		90			95		
Glu	Pro	Glu	Gly	Thr	Gly	Ser	Ser	Glu	Lys	Asp	Glu	Leu			
								100		105					

<210> 20

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> chimeric mouse TSP3-KDEL

<400> 20

aagcttacca	tggaaaagtt	cactgtggtg	gcggcgccgt	tgctgctgct	gggcgcggtg	60
cgggcccagg	gatccagcct	gggtggagac	tgttgtgggg	agcagaccaa	ggcattggtc	120
acccagctca	cccttcaaa	ccagatccca	gtggagcttc	gggacgacat	ccgagaccag	180
gtgaaggaaa	tgtcactcat	ccggaacacc	atcatggagt	gtcagggtgt	cggccgcag	240
ccgcagccga	aaccgcagcc	gcagccgca	ccgcagccga	aaccgcagcc	gaaaccggaa	300
ccggaaggta	ccggatcatc	agaaaaagat	gagttgttagg	cggccgcaga	attccatatg	360

<210> 21
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> chimeric Xenopus laevis TSP4-KDEL

<400> 21
Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
1 5 10 15
Val Arg Ala Glu Gly Ser Ser Leu Gly Gly Asp Cys Cys Gly Asp Val
20 25 30
Ser Arg Gln Leu Ile Gly Gln Ile Thr Gln Met Asn Gln Met Leu Gly
35 40 45
Glu Leu Arg Asp Val Met Arg Gln Gln Val Lys Glu Thr Met Phe Leu
50 55 60
Arg Asn Thr Ile Ala Glu Cys Gln Ala Cys Gly Pro Gln Pro Gln Pro
65 70 75 80
Lys Pro Gln Pro Gln Pro Gln Pro Lys Pro Gln Pro Lys Pro
85 90 95
Glu Pro Glu Gly Thr Gly Ser Ser Glu Lys Asp Glu Leu
100 105

<210> 22
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> chimeric Xenopus laevis TSP4-KDEL

<400> 22
aagcttacca tggaaagtt cactgtggtg gcggcgccgt tgctgctgct gggcgccgtg 60
cgggccgagg gatccagcct gggtgagac tgggtggtg acgtcagcag acagttgatt 120
ggccagataa cccaaatgaa tcagatgctg ggagagctcc gagatgtcat gagacagcag 180
gtgaaagaga ccatgttctt gagaaacacc attgcagaat gccaggctg tggcccgccag 240
ccgcagccga aaccgcagcc gcagccgcag ccgcagccga aaccgcagcc gaaaccggaa 300
ccggaaggta ccggatcatc agaaaaagat gagttgttagg cggccgcaga attccatatg 360
catctcgag 369

<210> 23
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> chimeric human COMP-KDEL

<400> 23

Met Arg Tyr Met Ile Leu Gly Leu Leu Ala Leu Ala Ala Val Cys Ser

<210> 26
<211> 315
<212> DNA
<213> Artificial Sequence

<220>
<223> chimeric human PLB-KDEL

<400> 26

aagcttacca	tggaaaggta	catgattta	ggcttgctcg	cccttgcggc	agtctgcagc	60
gctgcacaaa	aaggatccag	cctgggtgga	gactgttgc	aaaagctaca	aatctattt	120
atcaatttct	gtctcatctt	aatatgtctc	ttgctgatct	gtatcatcgt	gatgcttctc	180
ccgcagccgc	agccgaaacc	gcagccgcag	ccgcagccgc	agccgaaacc	gcagccgaaa	240
ccggaaccgg	aaggtaccgg	atcatcagaa	aaagatgagt	tgtaggccgc	cgcagaattc	300
catatgcattc	tcgag					315

<210> 27
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> chimeric human TSP3-KDEL

<400> 27

Met	Arg	Tyr	Met	Ile	Leu	Gly	Leu	Leu	Ala	Leu	Ala	Ala	Val	Cys	Ser	
1									5				10			15
Ala	Ala	Lys	Lys	Gly	Ser	Ser	Leu	Gly	Gly	Asp	Cys	Cys	Gly	Glu	Gln	
													20	25	30	
Thr	Lys	Ala	Leu	Val	Thr	Gln	Leu	Thr	Leu	Phe	Asn	Gln	Ile	Leu	Val	
													35	40	45	
Glu	Leu	Arg	Asp	Asp	Ile	Arg	Asp	Gln	Val	Lys	Glu	Met	Ser	Leu	Ile	
												50	55	60		
Arg	Asn	Thr	Ile	Met	Glu	Cys	Gln	Val	Cys	Gly	Pro	Gln	Pro	Gln	Pro	
												65	70	75	80	
Lys	Pro	Gln	Pro	Gln	Pro	Gln	Pro	Gln	Pro	Lys	Pro	Gln	Pro	Lys	Pro	
												85	90	95		
Glu	Pro	Glu	Gly	Thr	Gly	Ser	Ser	Glu	Lys	Asp	Glu	Leu				
												100	105			

<210> 28
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> chimeric human TSP3-KDEL

<400> 28

aagcttacca	tggaaaggta	catgattta	ggcttgctcg	cccttgcggc	agtctgcagc	60
gctgcacaaa	aaggatccag	cctgggtgga	gactgttgc	gggagcagac	caaggcattt	120
gtcacccagc	tcaccctttt	caaccagatc	ctagtggagc	tgcggacgca	catccgagac	180
caggtgaagg	aatgtcaact	catccggaac	accatcatgg	agtgtcaggt	gtgcggccg	240

cagccgcagc cgaaaccgca gccgcagccg cagccgcagc cgaaaccgca gccgaaaccg 300
gaaccggaag gtacccgatc atcagaaaaa gatgagttgt aggcggccgc agaattccat 360
atgcatctcg ag 372

<210> 29
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> chimeric human TSP4-KDEL

<400> 29
Met Arg Tyr Met Ile Leu Gly Leu Leu Ala Leu Ala Ala Val Cys Ser
1 5 10 15
Ala Ala Lys Lys Gly Ser Ser Leu Gly Gly Asp Cys Cys Gly Asp Phe
20 25 30
Asn Arg Gln Phe Leu Gly Gln Met Thr Gln Leu Asn Gln Leu Leu Gly
35 40 45
Glu Val Lys Asp Leu Leu Arg Gln Gln Val Lys Glu Thr Ser Phe Leu
50 55 60
Arg Asn Thr Ile Ala Glu Cys Gln Ala Cys Gly Pro Gln Pro Gln Pro
65 70 75 80
Lys Pro Gln Pro Gln Pro Gln Pro Gln Pro Lys Pro Gln Pro Lys Pro
85 90 95
Glu Pro Glu Gly Thr Gly Ser Ser Glu Lys Asp Glu Leu
100 105

<210> 30
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> chimeric human TSP4-KDEL

<400> 30
aagttacca tggaaaggta catgattta ggcttgctcg cccttgcggc agtctgcagc 60
gctgccaaaa aaggatccag cctgggtgga gactgttgc gggactttaa ccggcagttc 120
ttgggtcaaa tgacacaatt aaaccaactc ctggagagg tgaaggacct tctgagacag 180
caggtaagg aaacatcatt tttgcgaaac accatagctg aatgccaggc ttgcggtccg 240
cagccgcagc cgaaaccgca gccgcagccg cagccgcagc cgaaaccgca gccgaaaccg 300
gaaccggaag gtacccgatc atcagaaaaa gatgagttgt aggcggccgc agaattccat 360
atgcatctcg ag 372

<210> 31
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide that binds to erd2 receptor

<400> 31
Tyr Thr Ser Glu Lys Asp Glu Leu
1 5

<210> 32
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide that binds to erd2 receptor

<400> 32
Leu Asn Tyr Phe Asp Asp Glu Leu
1 5

<210> 33
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> alpha-five integrin binding motif

<400> 33
Cys Asp Cys Arg Gly Asp Cys Phe Cys
1 5

<210> 34
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> KDEL/myc

<400> 34
Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
1 5 10 15
Val Arg Ala Glu Gly Ser Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
20 25 30
Tyr His Pro Asn Ser Thr Cys Gly Ser Ser Leu Gly Gly Asp Cys Cys
35 40 45
Pro Gln Met Leu Arg Glu Leu Gln Glu Thr Asn Ala Ala Leu Gln Asp
50 55 60
Val Arg Glu Leu Leu Arg Gln Gln Val Lys Glu Ile Thr Phe Leu Lys
65 70 75 80
Asn Thr Val Met Glu Cys Asp Ala Cys Gly Met Gln Pro Ala Arg Thr
85 90 95
Pro Gly Thr Ser Pro Gln Pro Gln Pro Lys Pro Gln Pro Gln Pro Gln
100 105 110
Pro Gln Pro Lys Pro Gln Pro Lys Pro Glu Pro Glu Gly Thr Gly Ser
115 120 125

Ser Glu Lys Asp Glu Leu

130

<210> 35
<211> 444
<212> DNA
<213> Artificial Sequence

<220>
<223> KDEL-myc

<400> 35

aagcttacca	tggaaaagtt	cactgtggtg	gcggcggt	tgctgctgct	gggcgcggtg	60
cgggcccggagg	gatccgaaca	aaaacttatt	tctgaagaag	acttgtacca	cccaaactca	120
acatgcggat	ccagcctggg	tggagactgt	tgtccacaga	tgcttcgaga	actccaggag	180
actaatgcgg	cgctgcaaga	cgtgagagag	ctcttgcgac	agcaggtcaa	ggagatcacc	240
ttcctgaaga	atacgtgtat	gaaatgtgac	gcttgcggaa	tgcagccgc	acgcacccccc	300
ggtaactagtc	cgcagccgca	gccgaaacccg	cagccgcagc	cgcagccgca	gccgaaacccg	360
cagccgaaac	cggaaacccgga	aggtaccgga	tcatcagaaa	aagatgagtt	gtaggcggcc	420
gcagaattcc	atatgcattct	cgag				444

<210> 36
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> human myc tag

<400> 36

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu

1 5 10

<210> 37
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> recognition sequence of KDEL receptor

<400> 37

Lys Asp Glu Leu

1

<210> 38
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> binds to KDEL receptor

<223> Xaa= any amino acid

<400> 38

Xaa Asp Glu Leu

1

<210> 39

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> binds to KDEL receptor

<400> 39

Ser Glu Lys Asp Glu Leu

1 5

<210> 40

<211> 4

<212> PRT

<213> Ratus ratus

<400> 40

Gly Asp Leu Ala

1

<210> 41

<211> 4

<212> PRT

<213> Ratus ratus

<220>

<221> VARIANT

<222> (0)...(0)

<400> 41

Gly Asp Cys Cys

1

<210> 42

<211> 4

<212> PRT

<213> Mus musculus

<400> 42

Gly Glu Gln Thr

1